

tropical taxa in the Blancan. The only Nearctic taxa in the Haile XV A fauna that closely resemble species in the Chapadmalal fauna are *Smilodon* and *Hemiauchenia*. The combination of correlative taxa of both Nearctic and Neotropical origin makes the resemblance between the Blancan fauna of Florida and the Chapadmalalan fauna of Argentina particularly strong.

EUSTATIC CONSIDERATIONS

In addition to faunal correlation, the effects of sea level changes caused by Pleistocene glaciation may be employed as an aid in dating Florida Pleistocene deposits. Glacial eustatic fluctuations of sea level have resulted in "terraces" or "abandoned shore lines," which are dominant geomorphic features of the Florida landscape (Cooke 1945, MacNeill 1949, White 1958, Alt and Brooks 1965). The location of a deposit that can be correlated with these features can be quite helpful in age determination. For example, a terrestrial deposit that is presently lying at or below sea level must have been laid down at a time when sea level was as low or lower than it is now. This would be an indication that the deposit was laid down during glacial times, as these were the times of low sea level. Once this is determined, the faunal elements may indicate which glacial stage is represented.

Inland deposits at higher elevations present a problem in that they could have been deposited either during a glacial or an interglacial stage. If it can be shown that a particular inland deposit was coastal at its time of deposition, then it must represent an interglacial stage, when sea level was high. Haile XV A stands at an elevation of 90 ft above sea level. It contains shark vertebrae that are similar in preservation to the other vertebrate fossils in the site (and therefore are probably not intrusive). This indicates the close proximity of the sea during the time of deposition. Remains of other fish species also suggest at least estuarine conditions. Haile XV A could represent either an interglacial stage or a preglacial wet interval during the Blancan; a preglacial age seems probable on biostratigraphic grounds.

PALEOECOLOGY

Among the lower vertebrate remains from Haile XV A are numerous lamnoid type shark vertebrae. Their preservation does not differ from that of other vertebrate hard parts in the site, and thus they cannot be interpreted as intrusive from adjacent Eocene limestones. (Sharks are known in the Ocala Formation, but not abundantly and mainly from teeth.) A variety of bony fishes of both freshwater and marine taxa await further study. These include *Amia*, *Lepisosteus*, *Centropomus*,